

MCCC Sponsors Metroplex Computer Conference

Scott Lamb

Mark Saturday, October 24th, on your calendar as the date of the Metroplex Computer Conference to be held at the Arlington Convention Center. This all day event is sponsored by the Mid-Cities Commodore Club, and will involve the joint production efforts of all the MCCC chapters.

The featured speaker of the conference will be Eric Graham, Ph.D., the creator of the now famous animated, 4096 color Amiga computer demo, "Juggler". Dr. Graham will be speaking on the subject of "Ray Tracing in Computer Graphics", and will be demonstrating his recently released solid modeling software package, "Sculpt 3D", and the soon to be released graphic animation package, "Animate 3-D", both published by Byte by Byte. Other graphic renditions, like "Juggler", are to be shown. In addition Dr. Graham will demonstrate the new Mimetics frame buffer which allows 16 million colors (640 x 480 resolution with effectively 24 bit planes) to be simultaneously displayed with an Amiga computer.

Also planned for the conference will be a demonstration of the new Amiga 500 and 2000 computer systems and a sampling of Amiga software by Richard Bilyea of the Software

Terminal. This demonstration should be of particular interest to User Group Members who recently received the software discount coupon from Commodore-Amiga. With the purchase of an Amiga 500, the coupon entitles the User Group Member to one of two software packages (Pack A, a \$600 value for \$99, consisting of Deluxe Paint II, Aegis Animator, Textcraft Plus, Pagesetter, Marble Madness, and an Epyx joystick; Plan B, a \$1200 value for \$199, consisting of Pagesetter Deluxe, Maxiplan 500, Superbase Personal, Word Perfect, Deluxe Video, Diga, and CLI Mate).

Other demos relating to the the Commodore 64 and 128 computers, as well as the Amiga family of computers are currently being planned. A complete agenda for the October 24th Metroplex Computer Conference will be printed in the next MCCC newsletter. If you would like to become involved in the production of this exciting event, contact your chapter vice-president.

Mark your calendar today.
October 24
Arlington Convention Center

SUPER C - A REVIEW

James Alexander

CCCC, Tucson, AZ

I guess the first place to start is the language itself. The 'C' language, first developed by Dennis Ritchie and Brian Kernighan, has existed since about 1972. It is a structured language, and therefore ALL programs can be written without the use of jumps. (No GOTO's!) Rather than sections of the code being subroutines, they are defined as functions and can pass arguments and a result. The result of this is that the programs are easier to read and maintain and the functions are easy to incorporate into other programs. C is a compiled language and is, therefore, VERY fast. C programs are written in such a way that they can be transported to another machine with very little change. The specifics of each machine are handled by the compiler.

Super-C comes with 3 main sections which should be familiar to anyone who has worked on compiled programming languages before. They are the editor, compiler, and the linker. The editor is where you write the programs in C language. The compiler is where your programs are translated into an object file. The linker is where your object file and other object files that your program will use are 'linked' together into executable machine language. The reason for the tremendous speed-up of 'C' programs over BASIC is that C programs are in machine language, whereas BASIC programs have to be translated and then branch to their machine code equivalents WHILE they run. In fact, many C programs will even be faster than many of the 'Load 'fn'.8,1' files that you use now. The

reason is that many of those files are BASIC programs with parts of the program relying on machine language subroutines. The subroutines are very fast, but the BASIC parts (usually the majority of the program) aren't. However, compiled C programs are all machine language and therefore very fast in their entirety.

Super-C can use up to 8 disk drives, and it has the ability to use the extra memory of the 128 as a RAM disk if so desired. Super-C also has a command pre-processor, which is where most commands are entered. The standard operating system of the computer is no longer used. Also, a different font is the default in Super-C. Many functions that are liable to be needed in your programs are included in library files, which are 'object files' of functions that have already been compiled. (Of course, they couldn't be object files w/o being compiled!) The mathematics of a C64 (or 128) is limited, in its scope and more importantly, its accuracy. Included in Super-C are DOUBLE PRECISION math functions: sin, cos, tan, atan, abs, sgn, sqr, sgrr, rnd, log, exp. These are

pretty much the standard necessary math functions, but the added advantage is the extra precision. The C64 (or 128) also has good graphics, and are especially difficult to use in a program. Well, Super-C also has a graphic library of

**Most C programs will
run more than six times
as fast as ...BASIC.**

object files. The functions include: graphic, graphon, graphoff, backgr, colors, clrmap, setcol, fill, dot, dotin, bdot, line, bline, shape, isgraph, setplot, plot, mapv, *mline, *oline, *plotobj, *pushobj, *bplotobj, *fplotobj, mask, & *bmap. Also, colors can be stated by the name of the color, as opposed to the color code. I don't expect you to know what all these functions are, but they are ALL useful and a lot easier to understand than a half a page of peeks and pokes.

The ENTIRE C language is included in Super-C, with the exception

of bit-fields. Just about anything that you would do on the C64 (or 128) can be done with Super-C. The obvious advantage is the ease of incorporating functions from one program into another program so that you don't keep reinventing the wheel.

Also, consider the fact that most C programs will RUN more than SIX times as fast as the same program (if you could write it) would in BASIC.

One thing that will make Super-C much better to use is the addition of an extra drive. It'll run fine with one, but you don't have to do any disk-swapping with two drives. The programs that are written in C give you the opportunity of producing two different run time versions. One of them will run only from the command processor, and the other will run from BASIC. Therefore, nothing extra is needed to run ANY of the programs on any computer.

Super-C allows you (easily) to take care of things like formatted input and output, disk file handling, structures (records), and much more. There are many, many functions in C that don't have a BASIC equivalent and would require a subroutine to do the same task (for instance, the graphics functions).

When you work on a C program, you will need a master disk (THE master disk, if you don't have a nibbler), and a work disk. Also, keep the manual close by; you'll need it. The more you program, the less you need it, of course.

So far, I really am pleased with this compiler. It has no major flaws, I can't even think of a minor one. To anyone who wants to get the MOST out of his C64 (or any other computer), 'C' is the best choice. For the C64 (or 128), Super-C is as close as you'll get to maximizing the efficiency of your programming. 'C' takes time to learn to use, and a long time to learn to use well, but the results are well worth the time. So, I can only say that I HIGHLY recommend this to all programmer types, and HIGHLY suggest to all others that this probably isn't

for them. Even in short programs, you will notice the tremendous speed difference, but it is in the longer programs that the true elegance shows.

I've quoted this example before, but just in case you didn't catch it the first time, I wrote a little routine that would fill the screen DOT BY DOT. The program was written in C and in BASIC. Also, as an added test, I put the DOT BY DOT C version against a LINE BY LINE BASIC version, and these are the results:

DOT BY DOT in BASIC took 4min 46sec.

LINE BY LINE in BASIC took 56sec.

DOT BY DOT in 'C' took 43sec.

Super-C is copyrighted by Data Becker and Abacus Software.

128 Safety Tip

Bob Young

Looking at the back cover of your C-128, look into the user port on the right. Between the circuit board and the bottom of the case, they have a thin metal shield. I have seen several units that have this shield bowed up toward the circuit board. If it is all owed to contact the bottom of the board, it could cause a disaster!! Stick a little piece of rubber or other soft insulation gently between the board and the shield to assure it never touches. Use a small piece so that you don't block the air flow!!

SOFTWARE TERMINAL

Amiga Hardware

C64 - C128 - Amiga Software

DISCOUNTS FOR MCCC MEMBERS

3014 Alta Mere Drive (Hwy 183)

Fort Worth - Phone 244-4150

PRINTER INTERFACES

FRED FIELD

Just exactly what does a printer interface do? Did you know that your interface has electronics in it such as a microprocessor and a small system program? Yep, it's actually a small computer that does input and output of its own. For starters, it converts the data coming in from serial to parallel. The cable that comes from the computer, possibly through a disk drive or two, is small and carries information one bit after another. The cable going from the interface to the printer is bigger, possibly a flat ribbon cable, and carries information with the bits traveling side by side as a group. What the interface does is like the starting gate official at a horse race. The horses are led to the gate in single file. The manager locks them into the proper stalls. A gun sounds and the horses are released together. Data comes into the interface one bit at a time, the interface shifts each bit into place then fires them off to your parallel printer 8 bits at a time.

A printer is a fairly simple unit. It doesn't have file handling capability. It can't send data, only receive it. It is not truly programmable, though there are several modes of printing and various character sets which can be selected. A printer basically receives numbers and processes them as instructions and data for text or



graphics output. When you have your printer interface in transparent mode, it sends the numbers straight through without change (except from serial to parallel form). It is as though the interface were not there: transparent to the system. Thus it is up to the sender or program to make sure the numbers being sent are the codes and characters defined in the printer. These are found in the manual that came with the printer. In a non-Commodore printer the character codes are usually standard ASCII. Note that not all printer interfaces have a transparent mode of operation.

Early on in Commodore computer history, the 1525 printer was the top mark. It was the dot matrix which could print all of the characters that the Commodore computers could (including the graphics characters on the face of the keys) and could also do bit mapped graphics. As there was no standard among the non-Commodore printers people were hooking up, the interface makers

adopted the 1525 as the Commodore standard. After all, the interface users all had Commodore computers and needed a common definition for programs with printout capabilities. This is what the emulate mode of your interface is all about.

With your interface in emulate mode, the printing emulates (works like) the 1525. Chances are your printer doesn't know anything

CCCC, Tucson, AZ

about Commodore. When you have your printer interface in emulate mode, though, the printer knows about both Commodore and your printer, provided the dip switches in the interface have also selected the family your printer belongs to. The interface now converts from the Commodore 1525 printer codes and Commodore ASCII character codes to the codes needed for your printer. Now your printer gives the same output (usually better quality) as the 1525 would give. Thus, you essentially have a 1525 printer built-in to your system. You can use the 1525 printer manual and any programs written for the 1525 will work for you.

In addition to the conversions mentioned above, the interface also performs standard handshaking of all data. This must be done both with the computer and with the printer. A signal is sent to the computer to indicate readiness to receive each byte and afterwards that the byte was successfully received. A signal is sent to the printer that a byte is ready to be sent. Test this for yourself by taking the printer off line and sending a message which includes a carriage-RETURN:



```
OPEN 1,4,7: PRINT#1,'WHAT DO
YOU KNOW?': PRINT#1:CLOSE1
```

The computer sent the message, but the interface couldn't handshake it to the printer. Now put the printer

on line, and the message will be sent from the interface and printed out.

[The following tests were done with a C-64, a MicroWorld-350 interface and a Panasonic KX-P1091 printer. Your own system may give different results. Those of you with laser printers will chuckle at the times as you measure printing speeds in pages per second rather than minutes.]

I have always wondered if all of the conversion activity which is done by the interface slowed printing down. Actually the mechanical operation of the printer (movement of the print head and the impact action) is one of the slowest aspects of all computer use. So I did some timing tests. First, I aligned top of page and did the printer self-test until the page was full. I timed this at exactly 1 minute. Next I put my interface into transparent mode and ran a little program which filled a page as fast as possible. To my surprise, it took exactly 1 minute as before. The interface throughput didn't slow the printer down. Now that's what I call transparent!

What about emulate mode? With the interface in emulate mode, I ran a program which filled the page with Commodore characters. The time was 1 minute 55 seconds, nearly double the time. Why more time? I noticed that printing changed to unidirectional during this run whereas the other test had been bidirectional. This alone accounted for the speed change because twice as many print head movements were required. The return of the print head from right to

left took almost as much time even though nothing was being printed. Why did the printing go to one direction only? In my printer manual I discovered that graphics printing causes this. I examined what I had printed and discovered that every line had 3 special Commodore characters which are not in my printer's default character set. They were the back arrow, up arrow and the English pound sign. I removed these from the program and reran it, still in emulate mode. The printing returned to bidirectional and the page was printed in 1 minute. So even emulate mode does not slow the printing of standard keyboard characters. It appears that the conversions and handshaking done by an interface don't slow a 120 cps printer down noticeably.

To see just what was going on from the printer's side, I activated its hex dump feature. When the printer is turned on while both the line feed and form feed switches are depressed, all bytes received by the printer are output as two digit hex numbers. In this way I hoped to see what is sent over by the interface when it is in emulate mode. In lowercase I sent a 'g' which has a Commodore ASCII value of \$47 (71) and the printer printed \$67. This is the value for the standard ASCII 'g' which my printer has. It was a simple replacement of one number for another.

When I sent a 'Commodore only' character, the up-arrow, the printer put out a whole string of values: 1B 4B 06 00 20 40 FE 40 20 00. Sure enough,

a graphics mode. Since the printer did not have the up-arrow character's information readily available, the interface had to resort to sending graphics commands to simulate the character. This automatically triggers unidirectional printing for that line (this ensures that the bit-mapped dots are correctly aligned vertically). It only occurs in emulate mode and only when the character is not in your printer. These include the up-arrow, back-arrow, English pound and all the character graphics which appear on the front of the keyboard keys.

In the beginning, companies like Commodore and APPLE hoped to dominate computerdom and required use of their printer products with their computers. Many third party companies scurried to patch up this incompatibility problem with new incompatible solutions. Your hardware combination may use entirely different methods than mine does. I would love to see the ROM programs for various printers and interfaces. If anyone has, or knows how to get a disassembly of the 1525 ROMs, please let me know. I have heard of these being advertised through the mail.

There are other factors which may keep you from getting top speed from your printer. As always, the weakest link in a chain is the determining factor. This is an auxiliary to Murphy's law. The printing speed you achieve may well be determined by the efficiency of the program you use. Graphics programs are

Continued
on page 7...

ADVENTURE PROGRAMMING

Werner Meserth

TV/BUG, Boise, Idaho

A few years ago learning about computers meant learning programming, not learning how to use software. But more and more programming is being left to experts. Not understanding a computer language makes it difficult to know how a word processor, a robot or any form of artificial intelligence can do its tasks. Learning a high level computer language like BASIC has not become more difficult and it certainly is still worth learning.

User guides coming with computers, 'how to' booklets from stores or instructors at school can teach the commands. Good versions of BASIC have more than fifty commands, but beginners can get away with knowing fewer than ten commands and still do something creative with them. However, many people, having learned the commands, don't know where to go from there. An Adventure story is a fun first creative effort using BASIC. Essential BASIC concepts and commands are:

- Clearing Screen
- Print Statements (PRINT...)
- Variable for character (X\$)
- Variable for number (X)
- Input Statement (INPUT...)
- Unconditional Statement (GOTO...)
- Conditional Statement (IF...THEN)
- Loops (FOR...TO...NEXT)

Once these concepts are learned the fun can begin. You are ready to create an ADVENTURE STORY.

Computer adventures are 'mind fantasies'. The player may find himself at a specific location starting to explore. Goals might be to find a certain number of treasures, get out of a dungeon, or complete a voyage.

Some programmers also find it advantageous to make an accurate flowchart or map of the adventure. Without it, programming may quickly become confusing.

The following story plot and program lines are given just to whet your creative appetite:

Example Story:

Recently the incomparable Rossetta Jewel was stolen. Rumor has it that a sneaky snake is hiding it in its cave. You, a very brave and slightly mentally unbalanced hero, decide to recover it. Friends offer you several items to help you defeat the snake. For the quest you can only carry one of the items. Convinced that not all items are useful, some may even be harmful, you choose carefully.

(The previous paragraph would be PRINT Statements). The choices would follow (1) ax, (2) snake charm, (3) reptile lotion, (4) computer programmer's guide.

The player is asked to choose one of the items by picking a number from one to four. The next several program lines would look something like this:

```
90 PRINT 'Which do you choose'
100 INPUT X
110 IF X=1 THEN PRINT'You chose the ax'
    :C=1
120 IF X=2 THEN PRINT'You chose the
    Snake Charm':C=2
130 IF X=3 THEN PRINT'You chose the
    Reptile Lotion':C=3
140 IF X=4 THEN PRINT'You chose the
    Programmer's Guide':C=4
```

Line 100 accepts your number (1 to 4). One of the next four lines (110-140) prints what you chose and enters into the computer's memory the corresponding number variable (i.e. C=1, C=2, C=3 or C=4).

At the end of the story when our hero meets the snake IF...THEN statements will tell the player what happened:

```
500 IF C=1 THEN PRINT'The ax works but
    has no effect on the snake.'
510 IF C=1 THEN PRINT'The snake poisons
    you!' : END
520 IF C=2 THEN PRINT'The snake charm
    works, but only on you.'
530 IF C=2 THEN PRINT'You take home the
    snake but leave the jewels.' : END
```

The reptile lotion turns the snake into a fire-breathing dragon, which in turn fries our hero. The correct choice in this adventure is number 4, the programmer's booklet. With it our hero could have quickly 'programmed' the sneaky snake into a cute rabbit. He could have then taken home both the jewel and the pet rabbit.

Before this final showdown our hero faces several obstacles along the way. A key may have to be found to enter the snake's cave. A flashlight may prevent our hero from falling into a bottomless pit. The bottomless pit scene may look like this:

```
300 PRINT 'Do You turn on the Flashlight?
    (type Y or N)'
```

```

310 INPUT X$
320 IF X$ = 'Y' THEN PRINT 'Smart
    choice': GOTO 400
330 IF X$ = 'N' THEN PRINT 'You stumble
    a little further...'
340 IF X$ = ' ' THEN PRINT 'and fall
    into a bottomless hole'
350 IF X$ = 'N' THEN FOR R = 1 to 25:
    PRINT 'Haaaihhh !!!': NEXT R
360 IF X$ = 'N' THEN PRINT 'After 3 days
    of falling you die of starvation':
    END
370 GOTO 310

```

In the above scene, if you turn on the light, line 320 lets you go on with your quest. But should you not turn on that light, you fall into the pit. Line 350 prints your last words, a long wail 'Haaaihhh !!!' 25 times. Finally the ominous message of starvation after three days of endless falling. Remember the pit is bottomless. Line 370 returns the player to line 310 if any key except 'Y' or 'N' is typed.

Using GET Instead Of INPUT...

We used the INPUT statement to have the player interact with the program. The same can be done using the GET command. With GET, the player does not have to hit the RETURN key to have his response interact with the program.

In the first example below, INPUT is used to solicit a player response. In the second example, GET is used. The excerpts are just little scenes that can be included in longer adventures.

```

200 PRINT 'There is a hole in the ground.
    Do you jump in? (Yes or No)

```

```

210 INPUT X$
220 IF X$ = 'YES' OR X$ = 'Y' THEN PRINT
    'DUMB MOVE': GOTO 500
230 IF X$ = 'NO' OR X$ = 'N' THEN PRINT
    'SMART KID!': GOTO 600
240 GOTO 210

```

The computer will print to screen the info about the hole and if the player wants to jump in. Line 220 will print a question mark and then the computer waits for the player's response. After a response has been typed, it is still necessary to hit the RETURN key before the program continues. The IF...THEN statements in lines 220 and 230 will direct the program to lines 500 or 600 depending on the player's response (Yes or No). Lines 500 and 600 are not part of the excerpt. Line 240 assures that the player will only type in acceptable responses. Other responses such as 'Maybe' will return the program to line 210.

The next example does the same, but note the difference in line 210.

```

200 PRINT 'There is a hole in the ground.

```

```

    Do you jump in (Y or N)?
210 GET X$: IF X$ = " THEN 210
220 IF X$ = 'Y' THEN PRINT 'DUMB MOVE':
    GOTO 500
230 IF X$ = 'N' THEN PRINT 'SMART KID!':
    GOTO 600
240 GOTO 210

```

The GET command does not automatically print a question mark to the screen. It also does not wait for the RETURN key to be hit. The program just continues. For that reason, line 210 tells the program to hold at that line IF no letter or key is entered. (Note: The double quotes (") mean no key or letter). Once a letter from the keyboard is typed, the program will continue. If 'Y' or 'N' is typed, the program will print to the screen the appropriate statement and then go to line 500 or 600. There will be no time to spell out entire words like 'Yes' or 'No'. Unacceptable responses (letters other than Y or N) will return the program to line 210.

Lines such as 240 are safety devices. Without them, an accidental inappropriate response sends the program to the next line that is not an IF...THEN statement. This line will of course make no sense to the player and ruin the adventure.



Continued from page 5...

Notoriously slower than they need to be. Usually the computer is doing other things simultaneously like supporting the screen and checking for the STOP key. These may take time away from the printing. Hardware is usually light years ahead and more capable than most of the software written for it. Programmers arise!

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GEOS TIPS AND TRICKS

CHUG, Houston, TX



Within the GEOS program there are several undocumented print characters in the geoWrite application. These are accessed by the Commodore key, such that with the Commodore key [C=] depressed and striking the hyphen key produces underline.

UNDOCUMENTED GEOS KEYS

C= + hyphen	underline
C= + @ (at sign)	accent work
C= + * asterisk	tilde
C= + ^ (up arrow)	vertical line
C= + colon	left brace {
C= + semicolon	right brace }
C= + / slash	backslash

WRITER'S WORKSHOP GEOS BOOK

G. Keegan

The Com-Line, South Bay

We've all seen the page layout advertising Writer's Workshop. The headers, footers, double columns and graphics pasted everywhere in the document! Well it ain't so folks.

The Workshop consists of GeoWrite 2.0, GeoMerge, Geolaser and Text Grabber, plus misc. printer and input drivers.

GeoWrite 2.0 allows insertion of graphics anywhere on the text page, CENTERED RIGHT TO LEFT between the margins. (As ALL GeoWrite applications allow!) You can have margins set most anywhere on the page, 10 to 70, 5 to 40, 40 to 70 and etc. But there can only be ONE set of margins per page. The text column can use all the page, the center, the right side or the left, BUT NOT more than one column per page. Headers

and footers are supported, as is justification of text.

I have not used GeoMerge; it was not a factor in my purchase of this program. The ability to import other word processing text and to paste graphics anywhere on the page were! As stated above, anywhere graphic placement is a PIPE DREAM, and so to the grabber. The Text Grabber is fully menu-driven. You run this application; it asks which WP you want. There are only a few, Easy Script, Paper Clip, SpeedScript and Generic. (There are one or two others.) Select the WP. I have not tried Generic, but as Easy Script is my WP of choice on the 64, I chose that. Tell the program the file name and soon you are looking at the file.

Margins and other paging controls are supposed to be translated correctly. My first try resulted in a 40 column format??, and I wasn't allowed to change it!!!! On another ES WP file try, I got approx. 50 column format and printed it out and saved the file under GEOS and did some other stuff including shutting the system off. When I came back up and on-line with GeoWrite, I tried to load the file and it crashed the system repeatedly.

GeoLaser is a program aimed at Apple's Laser printer, and the disk contains an Apple Laser Printer driver. The Laser printer program allows multiple page printouts (in photography it's called a double or triple exposure), and when discovered, sends the photographer right up the wall..! AH-HA so THAT'S how they did it? ..Printed that double column page in the advertisement. Page one consisted of header, footer and a graphic or two centered on standard margin format. Page two, margin probably about 10 to 35 with graphics centered between those margins and page three, margins approx. 43 to 75 with centered graphics. Then the laser printer was told to act like all three pages were one and print it all out in one pass!!! So GeoWrite 2.0 CANNOT do that page



layout, but it can be done with a Laser printer. Sorry, Not "A", but Apples's Laser printer. I called 'em and asked how much (a local dealer). They told me Fifty Seven Ninety Nine. Wow, what a deal, like CBM's 1520 plotter for only 49.99, when it was \$200 or \$300. Only Fifty Seven Ninety Nine I repeated. Yes, the clerk said, Five THOUSAND, Seven Hundred, Ninety Nine Dollars.

I dropped the phone. Turned out that was the price for the PLUS(?) model; a standard version can be had for Four Thousand...yep, never mind.

So, how did I do it? Created three (3) pages, one with header and footers and the graphic CENTERED between standard margins, page two everything to the left with graphics centered between those margins and page three to the right. Then get a HEAVY piece of paper and start sending it through the printer, again and again and again... That is operator cunning and persistence overcoming programming deficiencies. Berkeley calls it a program capability. Let's hear it for Berkeley!!! Hmmm, Hmmm (censored).

Of course, if you can't afford a Laser Printer, you can modem your files back east somewhere (REM:Quantum Link) and get true LASER printing done for a dollar a

page and get the product back some weeks later. Oh! Ho! Ho! Ho!, Berkeley, you're such a kiddier! What do you have for us next? I'm sure afraid we gonna find out.

So what do you get for your fifty buck program? The ability to do footings, headings, justify text, and very little else. HAPPY SPENDING!!!

P. S. (from subsequent article): I did everything I read about, found I couldn't do double columns, couldn't put graphics where I wanted 'em, unless I wanted 'em centered. Called Berkeley! This was biggest joke. They have a recording, "Thanks for calling, all our operators are busy, our hours are 9 to 5, please call back then, thank you." Something like that. I called at 10, 11, 1, 2, 3 and even 4. Being put on hold is bad, but this, a long distance call to listen to a no-help recording, AARGH!!!!

Getting a double column page with headers and footers was a real pain. That page took two days of work. The whole thing can't be one document. The headers and footers must be on their own document, then the pages of 40 column printing in another document. I wrote the article in Easy Script and transferred it to GEOS using Midnight Gazette's GEOS application/conversion program. In a word, nice!



GAME TIPS

Longview Texas Users Group

GHOSTBUSTERS: Using no name and account # 458 will give you \$1,000,000.

IMPOSSIBLE MISSION: Lure the black orb so that it hits a robot and blows it up. Once you've collected all 36 pieces of the 9 puzzles, go to the control room. Assemble the puzzles in the corridor or lifts. That way you won't be chased all over the place.

PITSTOP II: Ram the computer car's tires so that it has to change its off side tires while you change your near side ones. Gives you a head start.

RAID OVER MOSCOW: If you can't get out of the hanger, tap the space bar. Tap it again and you're in again for another try.

REVENGE OF THE MUTANT CAMELS: Typing the word "goats" on the title screen brings you into the cheat mode. Press any key to proceed to the next screen.

ZAXXON: Type in RED on the title screen for infinite lives.

64 SOFTWARE RESET

Barry Allyn

Com-Line, Chula Vista, CA

Don't have a reset switch installed on your 64 yet? Well, type this program in, type SVS49152, and presto, you have one! To reset the system, hit the SHIFT and CONTROL. It's never been this easy folks!

```
10 FORT=49152 TO 49177:READA:POKET,A:
   C=C+A:NEXTT:IFC<2854THEN PRINT
   "DATA ERROR!"
20 DATA 120,169,13,141,20,3,169,192,
   141,21,3,88, 96
30 DATA 173,141,2,201,5,240,3,76,49,
   234,76,226,252
```

PLUS EXCHANGE

Sixty-Fourum, JACUG

Tri-Micro, the company that wrote the built-in Plus 4 programs, is publishing a newsletter catalog annually for \$40. The current issue contains 47 pages of items for sale, reviews, and articles, with lower prices for members. They have an order number (1-800-826-4859) and a technical support number (1-714-549-1902), 9-5 Pacific Standard Time.

Address: Plus Exchange
P.O. Box 11300
Santa Ana, CA 92711

Letter From the Editor

It has been my distinct pleasure to serve as the editor of the MCCC News for these past three years. Those of you who remember my first issue of the club newsletter will appreciate how much I have learned over thirty-one issues. Not only have I become more knowledgeable in the areas of typesetting, graphics and page layout, I have learned so much more about my computer than I would have without the monthly assignment deadline and all.

I would like to thank all the members for giving me this opportunity and I especially appreciate the support and leadership of all the officers I have worked with. The friendships that have grown from the responsibilities of this position have led to many additional benefits and intangible assets.

The time for change is often uneasy and uncertain. It is with some reservation that I inform you that I will not be able to continue as editor in the coming year. Our club is fortunate to have many members who possess the interest and willingness to continue publishing the MCCC NEWS. In the coming months positions will be opening for many newsletter staff positions including editor. Please volunteer to help. The benefits far outweigh the inconveniences.

FONTMASTER 128

**Jean Goddin
Arizonia CUG**

For those of you who have a C128 and haven't yet chosen a word processor that works in the 128 mode, XETEC (the same people who make the printer interface) have published FONTMASTER 128. It will let you hold approximately 64k Bytes in text memory at a time and has room for 9 of its superfonds concurrently.

This word processor fits into the class of programs that are relatively easy to learn and use and yet versatile enough to offer a great deal of options.

First of all there are more than 45 fonts (type styles) to select from. In addition to the normal print there are many fancy and unusual ones (including script, italic, Olde English, and mirror which prints a mirror image).

When it comes to selecting your print options, you may choose Pica, Elite, or almost 20 other pitches, compress, boldface, or expanded print modes, subscript, superscript, and even underlining/highlighting of text blocks. You can do proportional spacing, centering, and justification. And the program supports about 100 different printers, so no matter which printer you have it should work with this program. It also offers the option of columnar printing (up to 4 columns), headers and footers. You can even preview your final document in the font you have chosen on screen before you send it to the printer.

This program even offers 4 help screens for folks who want that extra support. It also allows form letter/data merging and has formatters for inserting graphics into documents. It offers the advantage of 80 column format, easy access to the file names on your disk directory, and PRG file merge.

As word processors go, this one is a fun one to use. Normally, FONTMASTER 128 retails for \$59.95.

C-64 KEYBOARD REPLACEMENT

**Millard F. Timm
Bits and Bytes**

After several months of fighting malfunctioning keys on my C-64, I was about ready to delegate the equipment to the trash can. Dirty contacts were suspect, the space bar did not function unless it was hit two inches from the left side, several keys had to be hit quite hard to get a response, etc. When Radio Shack announced the availability of a replacement keyboard (their catalog #277-1027) for \$4.95, I decided to gamble with my ability to make a substitution. However, the radio Shack keyboard is NOT a replacement for the C-64. Although they are almost identical mechanically, the wiring is not the same. So, here's what I did.

Remove the 3 screws from the bottom front side of the computer and separate the keyboard section from the electronic works. Unplug the 2 cables and position the keyboard with the circuit board up. Unsolder the wires from the SHIFT LOCK key switch. Using a #0 Phillips screwdriver, remove the 23 small screws which fasten the printed circuit board to the enclosure.

At this point, contacts on both the key plungers and the circuit board may be cleaned. I opted, however, to replace all those assemblies with those from the Radio Shack board. Make a sketch of the C-64 keyboard so that key caps can be positioned correctly during reassembly.

Pry off caps from all the key assemblies, starting from the numbers row and working toward the space bar. Quite a bit of force is required for their removal; time taken to fashion a tool for the purpose will be well spent. Picture a strawberry huller and make it something like that, but with 1/8 inch lips folded inward at the 'huller' end and so spaced that the tool will fit over the key. With the lips over the key, pull straight up. A small 'crow bar' under the key will be a

help.

Each key assembly is comprised of three parts: the cap, a spring, and the plunger with its carbon contact element. Don't mix the assemblies from the two keyboards!

Now start the cleaning and reassembly of new components. Wash your hands! As a precaution, briefly rub the plunger contacts firmly on a lint-free white paper placed on a flat surface. Inspect each contact for contamination. Clean the gold contacts on the printed circuit board. I used cotton swabs (Q-Tips) and alcohol--alcohol on one end of the stick; the dry end for polishing. Inspect each contact under a strong light.

If the space bar is to be removed, pry the straight spring (below the bar) from the two clips which are an integral part of the black molding on which the keys are mounted.

To reassemble, start with the space bar edge of the panel. Insert a contact plunger from the back side and hold in place with a flat back-up (I used a heavy 6" rule). Turn the panel over and place a spring over the plunger. Next, push firmly on the cap--usually it will snap into place. Check to see that all caps are the same height. (B&B Ed Note: It may be easier to insert all plungers and refasten the circuit board before installing the springs and keycaps.)

Before fastening to the circuit board, inspect carefully under a strong light, looking for any contamination.

Fasten the keyboard panel to the circuit board with the 23 screws, solder the wires to the SHIFT LOCK key mechanism, plug in the 2 cables, and complete the assembly. My C-64 works like new again.

**Did you know both
MCCC BBS numbers
have changed?**

See page 14 for details.

AMIGA TV RF MODULATOR

William Beshures

Sometimes it is difficult to justify everything you do, like buying an Amiga when you already have an Apple computer and an Ohio Scientific computer. Ever since I bought my Amiga in October of 1985, I have wondered what the display would look like on a color television.

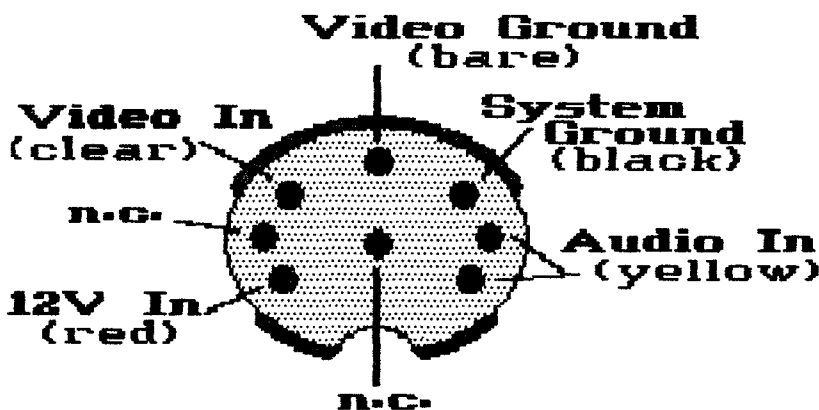
You may ask, "Who cares about a color TV when you have an RGB color monitor?" Well, I guess it is hard to justify. The excuse I gave my spouse was that it would be easier to take the computer to the cottage if we could use the television at the lake instead of the color monitor (one less thing to fit into the car).

If you are just a little bit curious about using a TV as the Amiga's display, this article is written for you.

You can make a TV RF Modulator for an Amiga for under ten dollars, but you will have to break out the soldering iron in the closet (another thing you bought and don't use very often). Your local Radio Shack stocks a TV RF Modulator (Cat. No. 277-1015) that can accept audio and video from a computer and convert signals for use with a television. The modulator has 'Texas Instruments' printed on it with a model number of UM1381-1. I believe it was the one used with the T.I. home computer.

This modulator comes with a 5 pin DIN connector, while the socket on the back of the Amiga requires an 8 pin DIN connector. This is why you will need to use the soldering iron. You will not be able to find an 8 pin DIN connector at Radio Shack but you should be able to find one at a local electronics parts store.

The top of the modulator pops off very easily allowing you to examine the wire connections inside the box. It is not necessary that you open the modulator but you may want to double check that yours is wired the same



AMIGA TV Modulator Connection (solder side of 8-pin DIN plug)

way mine was. You will notice that each wire connection is clearly labeled (black-system ground, clear-video in, yellow-audio in, etc.) Once you are satisfied that your box is the same as mine, put the lid back on; we are going to make our changes at the connector.

Your next chore is to remove the 5-pin connector on the modulator. The plastic hood on the connector will slide off the connector and up the wire. Use a small bladed screwdriver and some effort. Don't worry about breaking the connector. You're going to throw it away when we're finished.

The two metal shields can be removed to show the solder side of the 5 pin DIN plug. Use your soldering iron to remove each of the wires.

Now look at the diagram which shows you how to connect the wires to the solder side of the 8 pin DIN connector. Two of the pins, the ones labeled 'n.c.', will not be connected to any wires.

Note that two adjacent pins need to be connected to the same wire. These are the left and right channels of the audio output from the Amiga. The video ground wire is a bare wire with a short clear sheath to protect it.

Once you have finished soldering the wires to the appropriate pins, you can attach the two metal shields and slide the plastic hood back over the connector.

Finally, connect the antenna leads

of the TV RF Modulator to your television and plug the 8 pin DIN connector into the back of the Amiga and you will be able to use the television as your Amiga display. The display looks very good on a color TV and the sound is great! The display looks better on my 13 inch TV than it does on my 19 inch one, but neither one is as good as the RGB color monitor

that I purchased with the Amiga.

If you do not yet own an Amiga but are thinking of buying one, you might consider using a TV until you can afford the RGB color monitor. If you already own an Amiga and monitor, just tell your 'better half' that if you make a TV RF Modulator, there will be one less thing to load into the car for those weekend trips to the cottage on the lake.

TIMEWORKS REPLY

Macey Taylor CCCC, Tucson, AZ

In response to my queries (a) about transferring files from 64 versions of Timeworks programs to 128 versions and (b) Partner 128's problem with some C-128s made in Sept/Oct 1985, Timeworks says:

(a) Due to a difference in the file structures of the 64 and the 128, it is not possible to use exchange files between the two systems.

(b) If your computer is incompatible with Partner, send it back to us and we will replace it with a copy that will work. I say to (a) How dumb! I can transfer WordPro 64 files into WordPro 128 with no trouble, as well as files from other 64 word processors I've tried that load into WordPro. I can't transfer Word Writer into anything but Big Blue Reader. (b) Fine, but how come they don't just sell everybody that type? However, they did answer, and I believe that they will immediately exchange your Partner 128 if need be.

CB FAD IS REBORN ON COMPUTER

Dan Gutman

Quantumlink

Recently, a woman in New York named Terry Biener drank her morning coffee as she chatted with a man in Guam and a man in South Africa...at the same time. "Cupcake," as Biener calls herself, was typing the multiple conversation via computer over telephone lines. "CB simulation" is one of the most interesting--and unusual - spinoffs of the Information Age.

The CB fad ("citizens band") hit it big back in the Seventies, when people all over America started to put CB radios in their cars. The craze didn't last very long, mostly because drivers who aren't truckers don't have a whole lot to say to one another besides, "10-4, good buddy."

But mass communication is no fad. Here in the Eighties, CB has advanced to a new level. Every night, computer enthusiasts all over the world gather in front of their screens to "chat" with friends whose faces they will never see and whose voices they will never hear.

You'll find CB simulation available on CompuServe, GENie, Quantumlink, Minitel and other computer networks. As many as 200 people gather at the same time to chat the night away.

Weird things are happening on CB. On CompuServe, an Oregon man was chatting for a year with a man in Canada, when they discovered they were third cousins. "Ferrari" from Kansas City and "Bandit" from Memphis realized they had the same great grandfather.

Then there's the in Canada who was brought up in Argentina. He bumped into another Argentinian online and was thrilled to meet someone from his former country--until he found out it was his former girlfriend.

Last November, GENie (operated by General Electric) threw a Thanksgiving CB party where people logged onto the system with names like "Giblet", "Stuffing" and "Dark Meat". GENie's CB system operator Muffy (she never reveals her real name) recalls that things got a little bit out of hand.

"They started an imaginary food fight," she says. "One girl picked up a

pumpkin pie and threw it at a guy. He ducked and it hit another CBer.

On any given night, you may find yourself chatting with people named Needahug, Boy Toy 69, Captain Space, or ImaBadGirl. Occasionally you'll bump into Steve Gerber, who created Howard the Duck. Katherine Hepburn's personal photographer is online and goes by the handle of "Cuffs".

And if you ever bump into someone named "Calfax," you'll be amazed to learn that it is Jerry Lewis' first cousin.

A few years back, articles about people meeting online and getting married were fairly common. Now its divorces. Cathleen Anderson of Quantumlink says, "It gets a little messy at times. People meet other people online and fall in love, but they're already married to someone else."

The price to see other people's words on your computer screen--as little as \$5 an hour. That sounds reasonable. But last month Robert Kordet, a Georgia man who subscribes to GENie, paid \$1200 to chat on CB. That works out to eight hours a day, seven days a week.

"It's just like the TV show Cheers," Kordet says. "People need people. Everybody's in that position all the time no matter how happy their lives are."

I asked Kordet how anyone could possibly need people so badly that he'd pay \$1200 a month to talk with them over a computer. "I spent five years living in a monastery," he said.

New BBS Numbers

ASCII Board: 268- 4191

Graphic Board: 268- 4196

Amiga Chapter News

Rick Schultz

The August meeting featured a demonstration of the Midi interface and keyboard used by the various music programs. Bill Keatley did a fine job presenting the demo, and the club's appreciation and thanks is also extended to Kerry Bates for the use of his keyboard.

The September meeting's theme is "Hacker's Tools", presented by Dave Campbell. Many of our members attended Dave's class in "C" programming language and know what a fine job he does. In this presentation, he will cover the various software tools available in the club library and elsewhere.

Due to the spectacular Quarterly Meeting planned in October, there will be no Thursday night Amiga chapter meeting. Be sure to attend this extravaganza and hear Eric Graham of Byte-by-Byte talk about 3-D graphics.

Many of the chapter's monthly meetings are being planned by ad hoc committees. Members are asked to donate their time to plan one month's meeting. In this way, the membership gains greater input into the program and your overworked officers are able to spend more time in long range planning. With the size of our chapter, if every member helped out when asked, an individual would not be asked more than once every 12 to 18 months, depending on the number required for each ad hoc committee. Please be generous and say "Yes" when asked to volunteer.

Ft. Worth Chapter

M.L. Hagemeyer

Do you want your computer to start earning a little money for you, or, maybe, a lot? Come to the Sept. meeting where Bill Leary will demonstrate how to use *Technical Analysis* to analyze stocks and pick winners.

At our August meeting, Larry Ford demonstrated how to combine keyboard synthesizers, additional speakers and the C-128 to compose and edit music. Thanks, Larry, for a very interesting program.

Our next meeting will be Saturday, Sept. 12, 1:30 p.m. at the General Dynamics Recreation Area on Bryant-Irvin Road.

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SEPTEMBER CALENDAR



Aug. 29 **Executive Board Mtg.**, 10:00 am
Western Hills Inn, Euless

Sept. 12 **Ft. Worth Chapter** 1:30 pm
Gen. Dyn. Rec. Area, Room 2

Grand Prairie Chapter, 1:30 pm
Grand Prairie Public Library

Sept. 15 **Arlington Chapter Mtg.**, 6:30 pm
Arlington Community Center

Sept. 17 **Amiga Chapter Mtg.**, 7:30 pm
Arlington Community Center

Sept. 19 **HEB Chapter Meeting**, 1:30 pm
Hurst Civic Ctr., 700 Mary Dr.

Sept. 21 **Ft. Worth Night Chapter**, 6:30 pm
St. Elisabeth Epis. Church

Sept. 26 **Startext Users Mtg.**, 10:00 am
Arlington Community Center

Oct. 3 **Executive Board Mtg.**, 10:00 am
Western Hills Inn, Euless

Oct. 24

**Metroplex Computer
Conference**
Arlington Convention Center



**School Starts -
Drive Carefully.**



MCCC NEWS

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